Alberta Economic Development
Alberta International and Intergovernmental Relations

Alberta Service Exports Survey

July, 2001
Investment and Trade

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Executive Summary

- **This is a follow-up to a 1996 study. Tracking service exports is difficult because they do not physically cross borders like other exports.**

Alberta Economic Development and Alberta International & Intergovernmental Relations initiated this survey as a follow-up to the *1996 Service Exports Survey*, and it was carried out by the Statistical Unit of Alberta Treasury in May 2000. Unlike goods and commodities exports, service exports do not physically cross borders and are therefore more difficult to track and trace. One way to think of service exports is "something you can't drop on your foot."

- **Primary data was obtained from seven of Alberta's commercial service industries.**

The survey was meant to gather data from primary sources: Alberta service firms. The report highlights seven commercial service industries: architectural services, computer services, engineering, oil and gas services, management consulting, geomatics and construction.

- **Service exports are important because they help provide well-paid jobs.**

In almost all cases, service exports represent high-value added content, and as such, are key in providing well-paid jobs in a knowledge-based economy. Recognising this, the Alberta government has targeted, amongst others, engineering, construction and oil and gas services as sectors that hold significant potential and in which Alberta is also internationally competitive.

- **Over two-thirds of Alberta's GDP is generated by service industries.**

Services are already an important part of the provincial economy: 86% of Alberta's firms are in service industries and they are responsible for over two-thirds of the province's GDP.

- **Services are a growing export sector in Alberta and are key in building a knowledge-based economy.**

While growth in exports as a percentage of the province's revenue slowed for mining and actually shrank for agriculture from 1994-99, the manufacturing and service sectors experienced faster growth over the same period. During that time, manufacturing and service exports grew 23% and 13% per year respectively. Service exports are important in a knowledge-based economy as a source of quality jobs, clean industry and increased revenues, making them key in building Alberta's future.

- **Reliable data is necessary for benchmarking, reporting, and current negotiations on trade in services.**

Reliable and current data is necessary in order to provide a benchmark for the province's international marketing strategy, to report accurately on Alberta's service exports, and to strengthen Alberta's negotiating positions on trade in services. This is of particular importance given the need for Alberta's objective and meaningful input on the current negotiations on international rules for trade in services in the World Trade Organization and the Free Trade Area of the Americas.

- **Service exports: "Heading in the right direction but still a long way to go."**

While services as a percentage of total exports from Alberta has been increasing (9.4% in 1999 vs. 7.9% in 1994), it is still below that of Canada as a whole (12.6% in 1999) and significantly below the global average of 20 percent of exports.

- **But . . . Alberta Has Strong Service Export Potential.**

Alberta has shown strong annual growth in certain service export sectors, such as business services and construction services, especially when compared with the national average, indicative of solid export capabilities. For example, the contribution of commercial services to Alberta's GDP grew on average 7.2% annually from 1989-99, compared with 4.6% growth in Canada as a whole. The same can be said for construction services, which grew 4.0% annually in its contribution to Alberta's GDP over the same period, compared with –0.5% in Canada as a whole.

- **Service export revenues were dominated by construction (61%) and oil and gas (22%).**

Construction and the oil and gas sector dominated service export revenues, accounting for 61% and 22% of the seven-sector total, respectively. Considerably smaller, were all other sectors combined, generating 17% of the total.

- **Alberta's service firms export more internationally than they do interprovincially.**

Of the seven sectors surveyed, 45% of service exports were interprovincial and 55% were international. Total service exports were $2.1 billion, or 10.1% of total revenue for these sectors.

- **Mid-sized firms, ranging from 10 to 49 employees, were the most reliant on exports as a source of revenue.**

In general, firms with 10 to 49 employees were the most reliant on exports as a source of revenue. While there was variation from sector to sector, generally the smallest and largest firms were less export-reliant than the mid-sized firms.

- **The number of Alberta firms exporting services has increased since 1995, with the biggest increase in the construction sector and oil and gas sectors.**

Since the *1996 Service Exports Survey*, the base of service exporters has been expanding throughout Alberta, in terms of the percentage of the province's service firms exporting. While almost all of the sectors surveyed showed an increase, growth was most marked for the construction firms, which went from 7.9% of firms exporting to 19.0%, and in the oil and gas sector, where the percentage of exporting firms increased from 12.6% to 17.0%

- **The United States was the most popular foreign market for service exporters, followed by Asia. Interest in Latin America and Europe, on average, is about the same.**

The United States was the most popular export target for a majority of service firms, particularly for computer service firms. The next most popular market region was Asia while interest in Latin America (as well as the Caribbean) and Europe was virtually the same, with around 18 to 19% of firms expressing interest in those regions, on average. Not surprisingly, engineering and oil and gas firms also showed a substantial interest in Africa and the Middle East.

- **This study provides the basis for more informed decision-making with regard to Alberta's international marketing strategy and its involvement in current and future negotiations on trade in services.**

This study provides information that allows the Government of Alberta to make better decisions with regards to the province's international marketing strategy. Sector by sector data regarding the number and size of exporting service firms, export growth, intensity, and export markets, permits the province to report accurately on the situation of its service exporters, and in so doing, to provide a benchmark for the future. Finally, it enables the Alberta government to take more informed positions with regard to present and future negotiations on international rules for trade in services.

Objective

The *Service Exports Survey* was undertaken jointly by Alberta Economic Development and Alberta International & Intergovernmental Relations, as a follow-up to the *1996 Service Exports Survey*. The survey was carried out by the Statistical Unit of Alberta Treasury in May 2000 with the objective of gathering reliable and current information on Alberta's service exports, and measuring the performance of Alberta service industries compared to their performance in 1995. Unlike the export of goods, it is often difficult to gather reliable data on service exports, and as such the survey was meant to gather data from primary sources, Alberta service firms.

This information is required to:

- enhance the department's ability to report accurately on Alberta's international service export activities;
- measure Alberta's progress in service exports relative to the rest of Canada and to previous years; and
- enhance and facilitate the province's approach to international negotiations in services at the World Trade Organization and other international fora.

This report highlights the export activities of seven commercial service industries:

- Architectural services
- Computer services
- Engineering services
- Geomatics
- Management consulting
- Oil and gas services
- Construction

Introduction

During the past decade, Canadian goods and services have been in increasing demand in international markets, making Canada one of the leading trading nations. The importance of international trade and investment to Canada's economy, expressed as the ratio of trade and investment to Gross Domestic Product (GDP), increased from 17.7 % in 1961 to 43.0 % in 1999. As a province, Alberta generates over one-third of its economic activity from exports of goods and services. Alberta's total exports reached $59 billion in 2000.

Over a period of three decades, Canada's exports have shifted away from resource-based sectors to manufactured products such as machinery and advanced technology. In Alberta, commodity exports increased from $22.9 billion in 1994 to $55.3 billion in 2000, an average annual increase of 15.8%. During the same period, manufactured exports increased from $6.6 billion to $17.5 billion, an average annual increase of 17.6%.

Notwithstanding the above, the significance of the service sector to the global economy continues to grow. More than 60% of world production is derived from services. 76.1% of Canada's GDP, and 80 % of the United States' GDP is generated by services compared to 18% and 17% respectively for manufacturing industries. Service industries are now the number one employer in many countries. Services account for 72% of employment in Canada.

One of Alberta's invisible strengths is the export competitiveness of service firms located throughout the province. The value of Alberta service exports in all sectors jumped from $2.0 billion in 1994 to $3.6 billion in 1999, an average annual increase of 9.7%. It must be noted that some of the activities that comprise a large proportion of the service sector are difficult to export: retail sales and wholesale trade, real estate, accommodation, etc., and therefore the base of potential exporters is smaller than the overall service sector. As well, many services, while not reported as service exports, contribute directly and indirectly to the production of goods that are exported, such as manufacturing exports.

Given the current negotiations underway on trade in services in the World Trade Organization and the Free Trade Area of the Americas, in both of which Canada participates, it is imperative that Alberta has accurate and reliable data on provincial service exports in order to provide meaningful and objective input into Canadian negotiating positions. This information will also be used to plan government international marketing initiatives. By having a better understanding of how much Alberta exports in services, and where those services are headed, marketing and industry development efforts of the government and private sector can be that much more targeted and effective.

Alberta's Service Capabilities

The service sector is an important segment of the economy, and service firms dominate the landscape of Canadian businesses. Like the rest of Canada, 86% of Alberta's firms are in service industries.

Percentage Distribution of Firms by Sector, 2000

Sector	Canada	Alberta
Agriculture	8.9	9.2
Mining	0.3	1.5
Manufacturing	4.5	3.7
Services	86.3	85.8
Total	100.0	100.0

Source: Statistics Canada Business Register; Alberta Treasury Business Register

As shown in the table below, 27.8% of Alberta service firms are in commercial service industries, which is lower than the 33.8% of firms in commercial service industries across Canada. Alberta commercial service firms account for 5.9% of Alberta's domestic economy, while Canadian commercial service firms account for 6.0% of national GDP. Comparing Alberta with Canada as a whole within the service sector, Alberta has a smaller percentage of firms in commercial services and financial services and proportionately more firms in health and utility-related services.

Percentage Distribution of Service Firms, 2000

Service Sector*	Canada	Alberta
Commercial services	33.8	27.8
Distribution	23.3	22.4
Construction	13.8	13.3
Finance	9.3	5.6
Travel-related	7.0	5.5
Transportation	5.7	5.4
Health	2.2	6.7
Recreation, culture, sports	2.0	2.1
Communications	1.3	0.6
Education	0.8	1.3
Utilities; other**	0.8	9.2
Total	100.0	100.0

*Based on service sector categories in the General Agreement on Trade in Services (GATS).
**Does not include government offices or membership organizations.
Sources: Statistics Canada Business Register; Alberta Treasury Business Register.

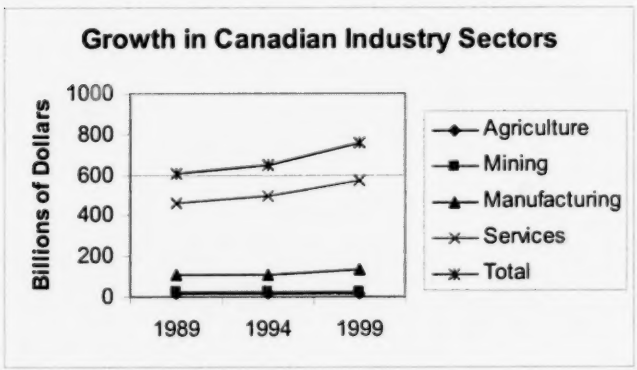
While a significantly higher percentage of Alberta's GDP is from mining activities (as compared to Canada as a whole), this is offset by a lower percentage from manufacturing production. Alberta has shown strong annual growth in both business services and in construction services, especially when compared with the national annual growth rates, indicative of solid export capabilities.

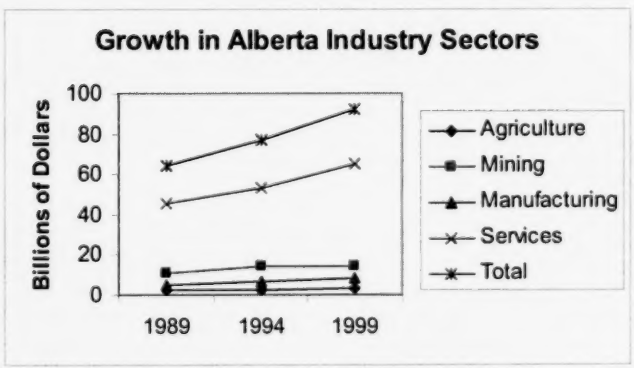
Breakdown of GDP by Sector, 1999

Sector	Canada Percent	Canada Ave Ann Growth: 89-99	Alberta Percent	Alberta Ave Ann Growth: 89-99
Agriculture, forestry, fishing	2.5	1.5	3.7	4.6
Mining	3.4	1.8	15.6	2.3
Manufacturing	18.0	2.4	9.6	5.9
Services	76.1	2.2	71.1	3.6
Business services	6.0	4.6	5.9	7.2
Construction	5.4	-0.5	8.5	4.0
Total	100.0%	2.2%	100.0%	3.6%

Source: Provincial Gross Domestic Product by Industry (Statistics Canada Catalogue 15-203).

The figures below show a continued growth in Alberta's GDP and service sectors, compared with national trends. All sectors of Alberta's economy have grown at a faster rate than the rest of the country.





Source: Canada's Balance of International Payments (Statistics Canada Catalogue 67-001).

While 97% of Alberta's service firms have fewer than 50 employees, for business service firms and construction firms the percentage is 99%. In both cases over half of the firms are owner operated with no employees, and another third of the firms have less than five employees. Export development initiatives intended for these sectors need to bear in mind the high percentage of very small firms.

Percentage Distribution of Firms by Size and Sector

	Number of Employees					
	None*	1-4	5-9	10-49	50+	Total
Agriculture	79.8	16.1	2.3	1.8	0.1	100.0
Mining	53.1	24.2	5.7	11.3	5.6	100.0
Manufacturing	35.8	28.8	8.0	20.4	7.1	100.0
Services:	45.5	30.1	8.5	12.7	3.2	100.0
Business services	51.9	32.5	6.1	8.1	1.4	100.0
Construction	50.1	30.8	7.7	10.7	0.7	100.0
Other	40.3	28.4	10.2	15.9	5.1	100.0
Overall Total	49.8	28.1	7.6	11.5	3.0	100.0

*Denotes firms having no employees
Source: Alberta Treasury Business Register

Overview of Alberta Exports

The value of Alberta's total exports has been increasing at a rate on par with the national average. On average, Alberta exports have increased at 10.0% per year since 1989, compared with a national export growth rate of 9.9% per year. Service exports grew at a rate slower than the national average but did outpace national performance during 1994-1999, when it grew at an annual rate of 9.7%.

Alberta's Exports

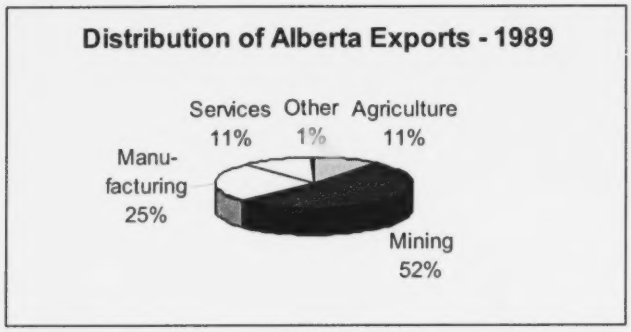
Sector	Millions of Dollars			Ave Annual Growth 1989-99
	1989	1994	1999	
Agriculture	1,617	2,656	2,392	4.0%
Mining	7,627	13,393	18,727	9.4%
Manufacturing	3,711	6,629	12,748	13.1%
Services	1,663	1,973	3,572	7.9%
Other	97	268	653	21.0%
Total	14,715	24,919	38,093	10.0%

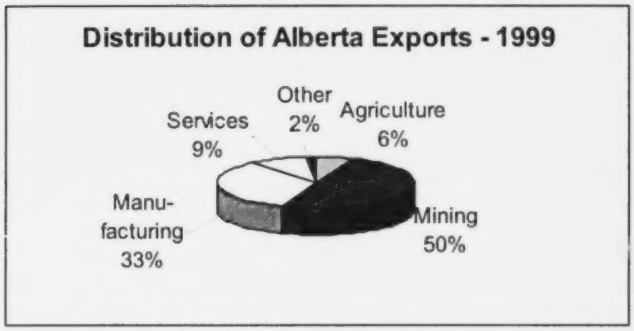
Source: Alberta Economic Development, *Alberta International Trade Review*

Canada's Exports

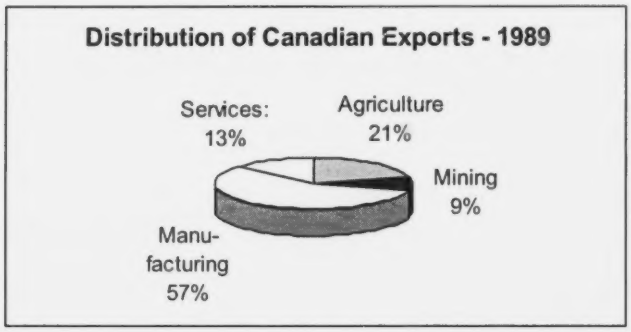
	Millions of Dollars			Ave Ann Growth 1989-99
	1989	1994	1999	
Agriculture	33,037	47,789	47,942	3.8%
Mining	13,726	19,176	19,200	3.4%
Manufacturing	92,453	160,927	293,458	12.2%
Services:				
Commercial	8,479	15,275	23,934	10.9%
Travel/tourism	6,680	9,703	9,375	8.3%
Transport	4,701	6,616	9,375	7.1%
Other	917	994	6,474	
	20,777	32,588	49,158	9.0%
Total	159,993	260,480	409,758	9.9%

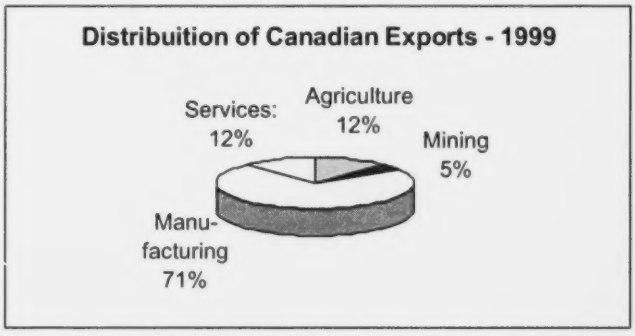
In general exports have been shifting away from primary and resource-based commodities (mining and agriculture) towards value-added and service exports. However, services as a percent of total exports from Alberta are still below that of Canada as a whole and significantly below the global average of 20 percent of exports. Both provincially and nationally, there is considerable room for service export growth.





While the value of service exports grew by 7.9% over the past 10 years, the relative contribution to total exports decreased, due to significant increases in Alberta's oil and gas and manufacturing exports. Service exports still had a strong annual growth rate, particularly in the later stages from 1994-1999, when they grew at an annual rate of 9.7%. Similarly, on a national level, services as a proportion of total exports also declined slightly.





Source: Canada's Balance of International Payments (Statistics Canada Catalogue 67-001).

Alberta Service Exports

The total revenue for the seven sectors surveyed in this study in 1999 was $20.8 billion, while in the 1996 study, the four relevant sectors combined for $8.6 billion in total revenue. While not completely compatible for use as a comparison, the evaluation gives a relative framework for how much business activity has increased in past five years. As indicated in the table below, the construction sector accounted for $12.7 billion of service revenue, or 61.0% of the total for these seven sectors, followed by the oil and gas sector, accounting for 22.0%. All other sectors were considerably smaller, generating slightly over 17% of the total combined, giving an indication of the relative size of the sectors and their contribution to the service sector. All of the sectors that were surveyed in the *1996 Service Exports Survey* reported a sizeable increase in revenue.

Sector	Total Revenue 1999	Percentage of all sectors	Total Revenue 1995
Architecture	119,232	0.57	96,778
Computers	871,643	4.20	*N/A
Construction	12,664,878	60.95	5,796,953
Engineering	1,645,462	7.92	754,379
Geomatics	210,079	1.01	N/A
Management Consulting	690,802	3.32	N/A
Oil and Gas	4,575,559	22.02	1,981,498
Total	20,777,655	100.00	**8,629,608

(thousands of dollars)

* Indicates sectors not studied in *1996 Service Exports Survey*

** Total in 1995 for the four sectors above

Local, Interprovincial, and International Revenues

With regard to export intensity, the majority of revenues were from services provided inside Alberta. 10.1% of revenue was from export of services. A few sectors were significantly more export-intensive, such as management consulting and geomatics, where over 20 percent of revenues came from exports.

Industry Sector	Local Revenue	Export Revenue		
		Interprovincial	International	Total
Architecture	104,760	8,771	5,701	14,472
Computers	631,412	109,797	130,434	240,231
Construction	11,840,361	555,736	268,781	824,517
Engineering	1,401,449	91,473	152,540	244,013
Geomatics	165,546	227	44,306	44,533
Management Consulting	520,704	19,450	150,648	170,098
Oil and Gas	4,010,046	168,078	397,435	565,513
Total	18,674,278	953,532	1,149,845	2,103,376

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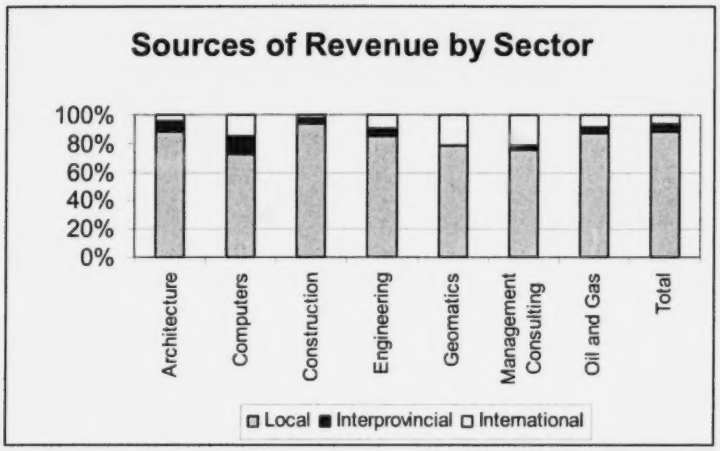


Comparison of Service Export Performance, 1995-1999				
Industry Sector	**Total Exports 1999**	**Revenue derived from Export**	**Total Exports 1995**	**Revenue Derived from Export**
Architecture	14,472	12.1%	9,963	10.3%
Computers	240,231	27.6%	N/A	N/A
Construction	824,517	6.5%	407,301	7.0%
Engineering	244,013	14.8%	156,313	20.7%
Geomatics	44,533	21.2%	N/A	N/A
Management Consulting	170,098	24.6%	N/A	N/A
Oil and Gas	565,512	12.4%	332,130	16.8%
Total	2,103,377	10.1%	905,707	10.5%

(thousands of dollars)

Average International and Interprovincial Export Revenues per Firm, and Percent of Revenues from Export

On average oil and gas firms earn the most from international exports, with an average of $1.3 million in revenue from foreign sources, as well as from interprovincial trade. However, in terms of average export intensity, management-consulting firms again head the list with an average of 21.8% of revenues from international sources, although they do not show the same degree of dependence on interprovincial trade. Computer service firms are equally dependent on international trade (15.0% of revenues) and interprovincial trade (15.9% of revenues), and are the most active interprovincially. In terms of interprovincial trade, construction firms earned the next highest percent of revenues outside of the province (9.1%) but showed, on average, very low dependence on international trade (2.2%).

Sector	International Exports		Interprovincial Exports	
	Avg. earnings	% of revenue	Ave. earnings	% of revenue
Architectural	166,000	4.8	191,000	7.4
Computers	375,000	15.0	248,000	15.9
Construction	1,293,000	2.1	3,070,000	9.1
Engineering	. 410,000	9.3	105,000	5.5
Management Consulting	164,000	21.8	38,000	2.8
Oil & gas	1,316,000	8.7	549,000	3.7

[1] Geomatics
Source: 1999 survey

Types of Service Exports

Because of the number and nature of service exporters surveyed, there was overlap in the types of services that firms provided. For this reason, in addition to identifying what their primary activity was, firms were asked what types of services they provided. For example, firms that identified themselves at engineering firms also provided other types of services, including oil and gas, geomatics, and management consulting services, among others

International Exports by Firm Size

In general, the small- to mid-sized firms were the most reliant on exports as a source of revenue. The greatest proportion of exporters was found in the 10-24 and 25-49 employee range, but this varied significantly by sector. In almost all sectors, firms with 10-24 employees derived more of their revenue from exports than did firms with 1-9 employees. However, when considering firms with more than 25 employees, the pattern was less consistent: in some sectors larger firms were more export-dependent (such as in construction or management consulting) while in other sectors (computers, and oil and gas) they were less.

Percent of Revenues from International Exports, by Firm Size

Sector	Number of Employees			
	1-9	10-24	25-49	50+
Architectural	0	7	*N/A	N/A
Computer Services		24	3	10
Construction	0	1	7	2
Engineering	8	19	26	7
Management Consulting	10	28	N/A	N/A
Oil & gas	3	2	0	2

*Data has been suppressed due to statistically small sample size

[1] Data for Geomatics has been suppressed due to statistically small sample size

Types of Clients

The seven service sectors surveyed differed with regard to their major type of export client. Almost all of the total service export revenues were split between the private sector and public clients, with a minimal amount going to non-profit organizations. Construction and architecture firms did business primarily with private sector clients, while geomatics and oil and gas firms targeted mainly public sector clients. Because a large share of oil and gas and geomatics service exports are with developing countries and state oil companies that are classified as public sector clients, these firms will be interested in issues of government procurement and bidding opportunities through the international financial institutions (IFIs).

Percentage Distribution of Clients by Sector, 2000

Sector	Private	Public	Non-Profit	Total
Architectural	69.0	30.9	0.0	100.0
Computer services	56.1	41.3	2.5	100.0
Construction	61.6	38.4	0.0	100.0
Engineering	58.1	41.9	0.0	100.0
Geomatics	18.0	82.0	0.0	100.0
Management Consulting	29.0	70.3	0.7	100.0
Oil & gas	8.3	91.7	0.0	100.0
Overall	20.1	79.8	0.1	100.0

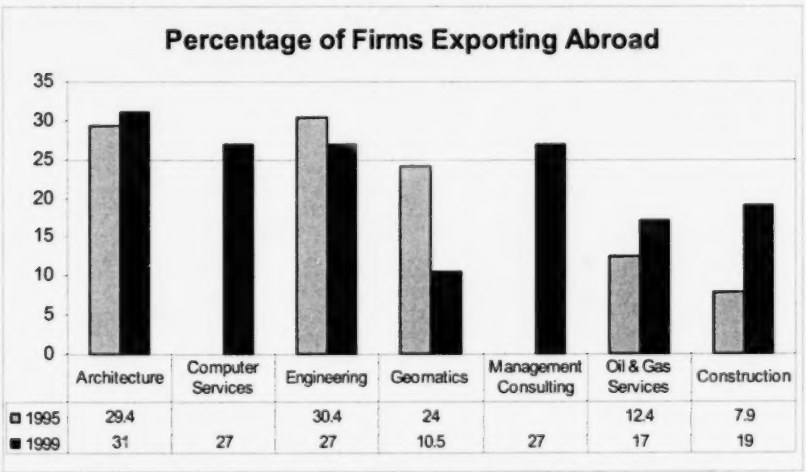
Alberta Service Exporters

Since the *1996 Service Exports Survey* the base of service exporters has been expanding throughout Alberta. While most sectors surveyed showed an increase, the increase was most notable for construction, where the percentage of exporting firms increased from 7.9% in 1995 to 19.0% in 1999, and in the oil and gas sector, where the share of exporting firms increased from 12.6% to 17%. The current survey indicates that firms providing services in architecture, computers, engineering, and management consulting are the most likely to be exporting to international markets. Architectural firms and engineering firms have remained relatively consistent since 1995 in the proportion of firms exporting internationally.

Changes in Percentage of Firms Exporting Abroad

Sector	% of firms exporting	
	1995	1999
Architecture	29.4	31.0
Computer services	n/a	27.0
Construction	7.9	19.0
Engineering	30.4	27.0
Management consulting	n/a	27.0
Oil & gas services	12.4	17.0

Sources: 1996 survey; 1999 survey



Activities in International Markets

The United States is consistently the most popular export target for firms in all fields. The highest interest can be found amongst computer service firms, which depend on a well-established information technology base in order to sell their services. On average, a quarter of the service exporters target Asian markets, with Latin America and the Caribbean being the next most popular.

Engineering and oil and gas firms show a substantial interest in African and Middle Eastern markets.

Percentage of exporting firms active in Geographic Regions

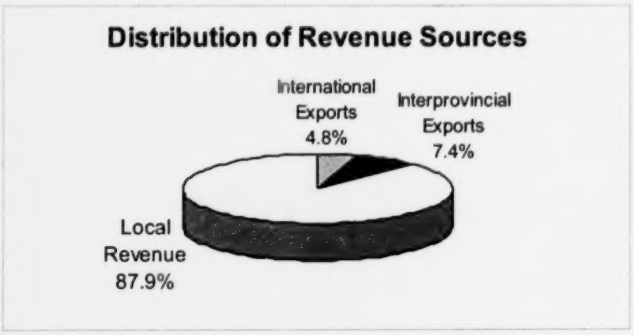
Sector	Geographic Region				
	USA	Asia	Latin America & Caribbean	Europe	Africa & ME
Computer services	83	19	17	19	5
Construction	71	25	21	13	8
Oil & gas services	70	18	12	9	18
Architecture	67	67	33	0	0
Management consulting	60	25	16	16	9
Engineering	58	29	26	27	24
Geomatics	50	50	50	0	50
Average	68	25	19	18	13

Source: 1999 survey data

Architectural Services

Interprovincial and International Service Export Revenue

Total revenue in the architecture sector was $119 million. $104.8 million of this revenue, or 87.9% of the total sector revenue, was generated from in-province sales. $8.8 million was in interprovincial revenue, while $5.7 million was international. The export intensity (12.1%) was relatively lower than several other sectors.



Distribution of Revenue	Value in dollars	Percentage
Local Revenue	104,760,000	87.9%
Interprovincial Exports	8,771,000	7.4%
International Exports	5,701,000	4.8%
Total Exports	14,472,000	12.1%
Total Revenue	119,232,000	100.0%

Types of Service Exports

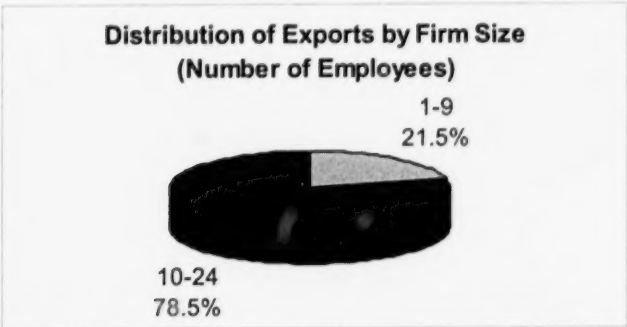
The principal services provided by architecture firms were architectural services, which accounted for 74.3% of their exports. However, architecture firms did provide other types of services, deriving 25% of their export revenue from engineering services, and a minimal amount, 0.3%, from oil and gas services. This gives an indication of the diversified activity within the sector.

Distribution of Exports by Type of Service		
Architecture	10,759,076	74.3%
Engineering	3,670,398	25.4%
Oil & Gas	42,526	0.3%
Total	14,472,000	100.0%

(Value in Canadian dollars)

Service Exports by Firm Size

All of the actively exporting respondents to this survey in the architecture sector were of a small size, with fewer than 25 employees. The majority of the revenue, 78.5%, was generated by firms of the 10-24 employee size group.

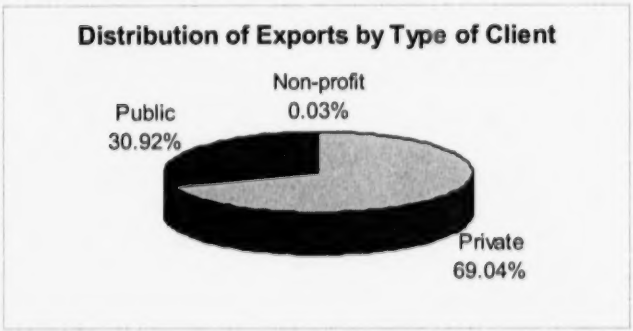


Distribution of Service Exports by Firm Size (number of employees)		
1-9	3,106,000	21.5%
10-24	11,366,000	78.5%
25-49	0	0.0%
50+	0	0.0%
Total	14,472,000	100.0%

(Value in Canadian dollars)

Service Exports by Type of Client

Most of the export revenue in this sector was to firms or organizations in the private sector. Private clients accounted for 69% of export sales, while the public sector accounted for 30.9%.



Distribution of Exports by Type of Client		
Private	9,992,047	69.04%
Public	4,475,314	30.92%
Non-profit	4,639	0.03%
Total	14,472,000	100.00%

(Value in Canadian dollars)

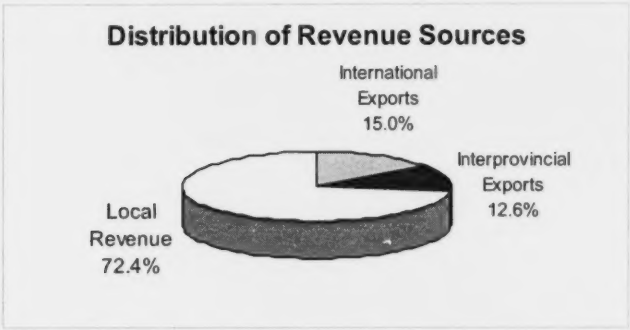
International Export Markets

The largest international market for architectural services was the United States, where firms reported an average of $258,000 in annual earnings. 67% of respondents reported export activity in the United States. Asia was an important market, with activity being reported in China, Taiwan, South Korea, and Philippines. 67% of the firms reported being active in Asia, and 33% in Latin America and the Caribbean.

Computer Services

Interprovincial and International Service Export Revenue

Total revenue in this sector was $871.6 million. The majority of this was generated within Alberta. However, a significant proportion of this revenue, $240 million, or 27.6%, was derived from exports, the highest of all sectors considered, suggesting that there was both strong demand for Alberta computer service firms and that the services that they provided were transferable to other markets. Of the $240 million generated in out-of-province service exports for the computer industry, there was a relatively even distribution between international and interprovincial exports, with 54% and 46% respectively. International service revenue as a share of total revenue was 15%.



Distribution of Revenue	Value in dollars	Percentage
Local Revenue	631,412,000	72.4%
Interprovincial Exports	109,747,000	12.6%
International Exports	130,434,000	15.0%
Total Exports	240,231,000	27.6%
Total Revenue	871,643,000	100.0%

Types of Service Exports

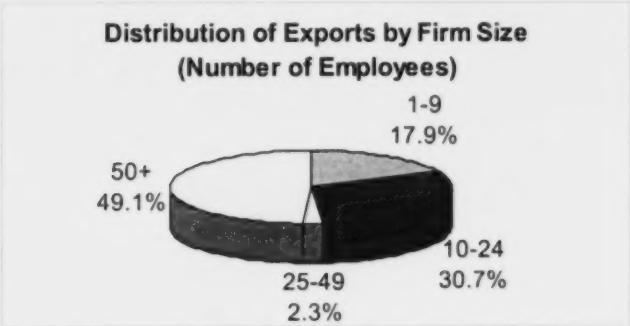
Firms that identified themselves as computer service firms provide services incidental to computers. The distribution of total service revenue by type of service is summarized in the table below, with the most important service provided being computer services (54.8%), followed by oil and gas services as well as engineering services.

Distribution of Exports by Type of Service		
Architecture	19,153	0.0%
Computer services	131,631,395	54.8%
Construction	63,507	0.0%
Engineering	24,842,237	10.3%
Geomatics	48,386	0.0%
Management Consulting	705,631	0.3%
Oil & Gas	46,118,013	19.2%
Other	36,802,679	15.3%
Total	240,231,000	100.0%

(Value in Canadian dollars)

Service Exports by Firm Size

Unlike several other sectors, where small or large firms dominated export activity, service export revenue was distributed among firms of all sizes. Small firms with 1-9 employees accounted for 17.9%, or $43.0 million, of the export revenue of the sector, while firms with 10 to 24 employees accounted for $73.7 million, or 30.7% of export revenue. Mid-sized firms with 25-49 employees were a small proportion, 2.3%, however large firms with over 50 employees accounted for the largest portion at $117.9 million, or 49.1%.



Distribution of Service Exports by Firm Size (number of employees)		
1-9	43,079,000	17.9%
10-24	73,698,000	30.7%
25-49	5,472,000	2.3%
50+	117,983,000	49.1%
Total	[2]240,232,000	100.0%

(Value in Canadian dollars)

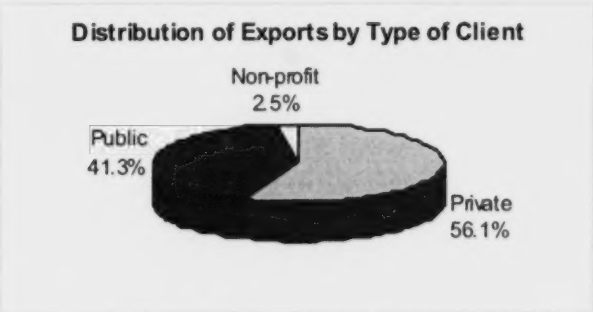
[2] Totals may not add up due to rounding.

Service Exports by Type of Client

Unlike other sectors, where the public sector was the major client, exports to private clients dominated the computer service sector. 56.1% of total service exports for computer services, or $133.5 million, went to private sector clients. The public sector accounted for $98.3 million or 41.3% of service exports and non-profit organizations accounted for only $6 million, or 2.5%. The proportion of non-profit clients was the highest of all sectors surveyed.

Distribution of Exports by Type of Client		
Private	134,879,498	56.1%
Public	99,305,096	41.3%
Non-profit	6,046,406	2.5%
Total	240,231,000	100.0%

(Value in Canadian dollars)



International Export Markets

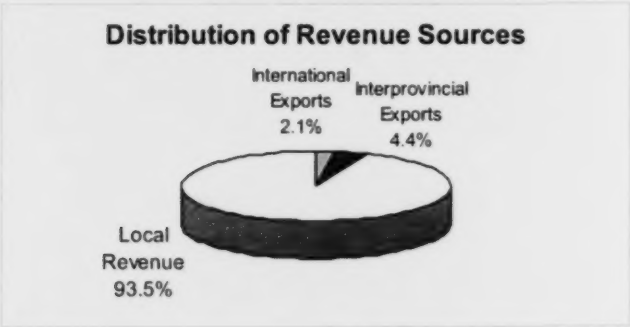
The computer services export market was one of the most diverse of all sectors. The most important markets in this sector tended to be industrialized countries that require more computer services. The United States was the largest, where firms actively exporting there earned an average of $461,000 annually. Europe was also an important region in the computer services sector. Netherlands and the United Kingdom were the largest European markets for computer service exports, with firms earning revenues of $206,000 and $121,000, respectively. Germany was also an important market, representing $115,000 in average annual revenues per firm. Australia and Mexico were other important markets. In addition, there were sizeable sales made in the Asia-Pacific region, the largest markets being South Korea, Hong Kong, and Indonesia, as well as to South America (Venezuela and Brazil).

Top Markets and Average Earnings In Market (per firm)	
United States	461,000
Netherlands	206,000
United Kingdom	121,000
Germany	115,000
Australia	55,000
Mexico	52,000

Construction Services

Interprovincial and International Service Export Revenue

This sector reported $12.7 billion in total revenue. A large proportion of these services were provided locally, with $11.8 billion originating within Alberta. Sales outside of the province accounted for $824.5 million. Of this amount, $555.7 million was in other provinces within Canada, while $268.8 million was from international sources.



Distribution of Revenue	Value in dollars	Percentage
Local Revenue	11,840,361,000	93.5%
Interprovincial Exports	555,736,000	4.4%
International Exports	268,781,000	2.1%
Total Exports	824,517,000	6.5%
Total Revenue	12,664,878,000	100.0%

Types of Service Exports

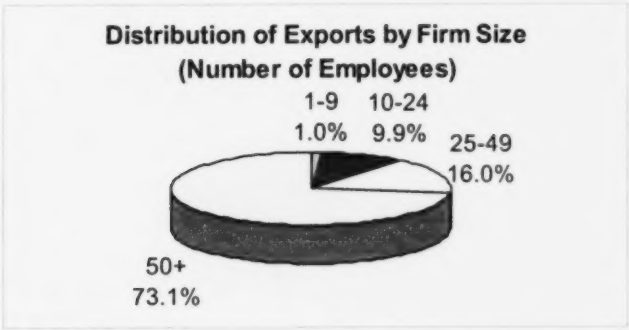
Exporting firms identified as construction firms provided mainly construction services, which accounted for 83.6% of their total exports. Firms also provided other types of services, notably oil and gas, and engineering services, as well as other activities.

Distribution of Exports by Type of Service		
Computer services	2,395,936	0.3%
Construction	689,525,013	83.6%
Engineering	12,685,368	1.5%
Management Consulting	4,602,411	0.6%
Oil & Gas	13,216,497	1.6%
Other	102,091,775	12.4%
Total	824,517,000	100.0%

(Value in Canadian dollars)

Service Exports by Firm Size

The survey attempted to consider only firms with more than 10 employees. Thus, almost all revenue reported was attributed to firms in the larger size categories. The greatest proportion of revenue came from firms with more than 50 employees. They accounted for 73.1% of all revenues. Firms with 25-49 employees were the next largest revenue generator, accounting for 16% of revenues.

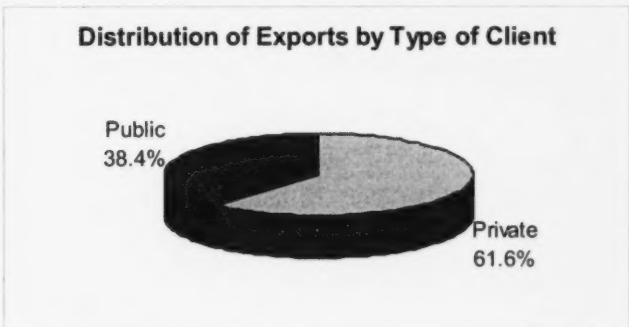


Distribution of Service Exports by Firm Size (number of employees)		
1-9	8,631,000	1.0%
10-24	81,524,000	9.9%
25-49	131,688,000	16.0%
50+	602,674,000	73.1%
Total	824,517,000	100.0%

(Value in Canadian dollars)

Service Exports by Type of Client

Private clients were the largest purchasers of construction services. Sales to private companies accounted for 61.6% of sales, while public clients accounted for 38.4% of revenues. None of the survey respondents reported sales to non-profit clients.



Distribution of Exports by Type of Client		
Private	508,136,820	61.6%
Public	316,380,180	38.4%
Non-profit	0	0.0%
Total	824,517,000	100.0%

(Value in Canadian dollars)

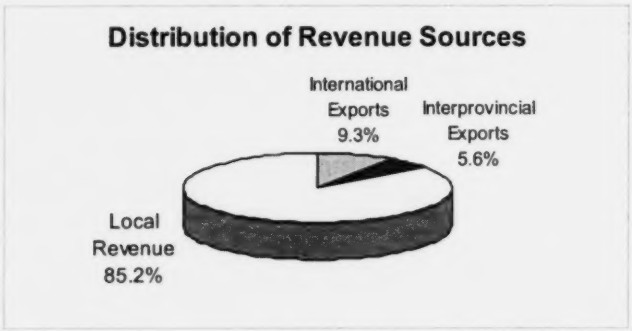
International Export Markets

The United States was the largest market for construction services exporters, with a per-firm average of $4,462,000 of revenue among firms that were actively providing services in the United States. 71% of exporting firms were reported to be active in the United States, while 25% of firms exported to Asia and 21% to Latin America and the Caribbean. In Asia, the largest markets singled out were China and Japan, while in Latin America and the Caribbean the largest markets identified were Argentina, Venezuela, and Ecuador.

Engineering Services

Interprovincial and International Service Export Revenue

This sector reported $1.65 billion in total revenue. 85.2% of this total, or $1.4 billion, was from services provided in Alberta. Interprovincial exports accounted for 5.6% of sales, or $91.5 million, however a greater proportion of exports was to international markets, unlike several of the other sectors. International exports totalled 9.3%, or $152.5 million.



Distribution of Revenue	Value in dollars	Percentage
Local Revenue	1,401,449,000	85.2%
Interprovincial Exports	91,473,000	5.6%
International Exports	152,540,000	9.3%
Total Exports	244,013,000	15.8%
Total Revenue	1,645,462,000	100.0%

Types of Service Exports

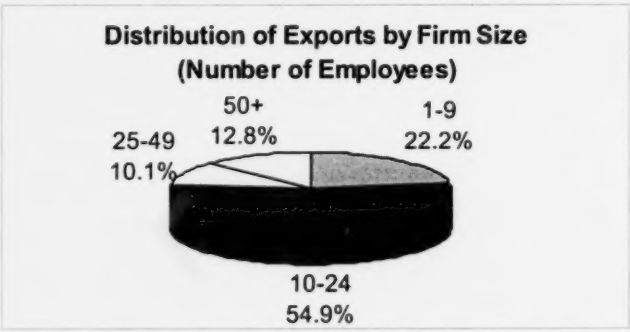
Firms in this sector provided a number of different types of services, but the highest revenue was provided by Engineering services, with $94.9 million in export revenue, or 39.7% of the total. A significant share of revenue came from providing services in the oil and gas sector, with some geomatics and management consulting revenue also reported.

Distribution of Exports by Type of Service		
Architecture	472,437	0.2%
Computer services	3,197,875	1.3%
Construction	4,196,829	1.7%
Engineering	96,803,588	39.7%
Geomatics	13,701,682	5.6%
Management Consulting	11,124,199	4.6%
Oil & Gas	75,164,359	30.8%
Other	39,352,031	16.1%
Total	244,013,000	100.0%

(Value in Canadian dollars)

Service Exports by Firm Size

Over 75% of the service export activity was from firms with fewer than 25 employees. The largest share was from medium-sized firms of 10-24 employees, which had $133.8 million in export revenue, or 54.9% of the overall sector exports. Firms with 1-9 employees had exports of $54.1 million, or 22.2%. Larger firms in this sector were also important exporters, with $24.7 million from firms with 25-49 employees, or 10.1%, and $31.3 million from firms over 50 employees, or 12.8%.

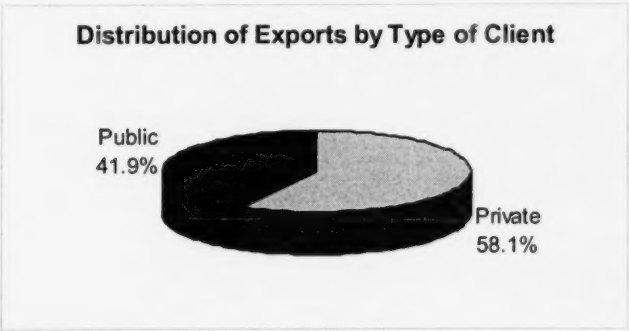


Distribution of Service Exports by Firm Size (number of employees)		
1-9	54,119,000	22.2%
10-24	133,859,000	54.9%
25-49	24,732,000	10.1%
50+	31,303,000	12.8%
Total	244,013,000	100.0%

(Value in Canadian dollars)

Service Exports by Type of Client

This sector was well divided between the private and public sector. Private clients were the largest buyers, with $138.8 million of sales, or 58.1%. Public clients accounted for $100.2 million, or 41.9%, of sales. While export sales to non-profit organizations accounted for $104,000, this amount was minimal, at 0.04%.



Distribution of Exports by Type of Client		
Private	141,677,265	58.1%
Public	102,229,605	41.9%
Non-profit	106,130	0.0%
Total	244,013,000	100.0%

(Value in Canadian dollars)

International Export Markets

The largest market in the engineering sector was China, where firms earned an average of $337,000 annually. Other markets where firms were active included Russia, the United States, the United Kingdom, the United Arab Emirates, and Australia. Respondents also reported significant activity in Mexico, Ecuador, Cuba, and Sudan.

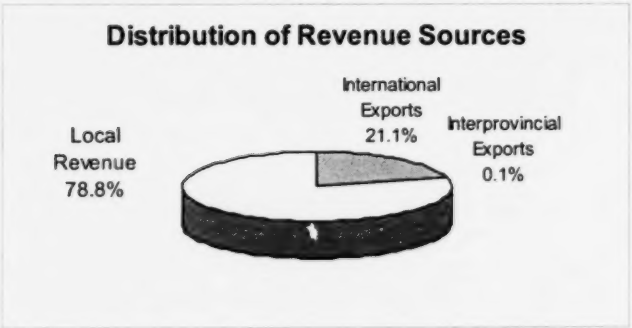
Top Markets and Average Earnings In Market (per firm)	
China	$337,000
Russia	$218,000
United States	$211,000
United Kingdom	$160,000
United Arab Emirates	$156,000
Australia	$135,000

(Value in Canadian dollars)

Geomatics

Interprovincial and International Service Export Revenue

21.2% of revenue reported in the geomatics sector was by exports. Of the $44.5 million in total export service revenue, $44.3 million or 99.5%, was in sales to foreign clients. Geomatics firms were much more reliant on international exports, as international revenue as a percentage of total revenue ($210 million) was 21%, one of the highest of all sectors considered.



Distribution of Revenue	Value in dollars	Percentage
Local Revenue	165,546,000	78.8%
Interprovincial Exports	227,000	0.1%
International Exports	44,306,000	21.1%
Total Exports	44,533,000	21.2%
Total Revenue	210,079,000	100.0%

Types of Service Exports

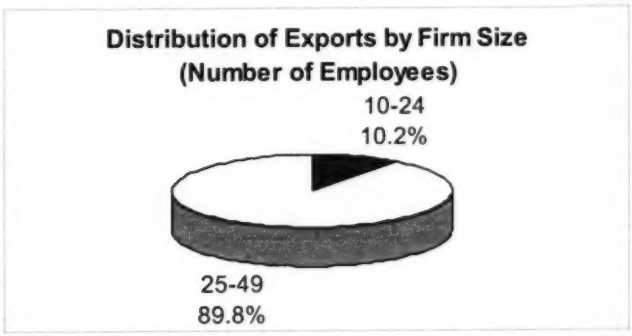
Alberta's geomatics firms provided primarily three types of services in 1999: engineering, oil and gas, and geomatics services. The total estimated service export revenue in 1999 was $44.5 million. The type of activity most firms identified themselves as providing was engineering services, with $43.4 million, or 97.5%.

Distribution of Exports by Type of Service		
Engineering	43,399,000	97.5%
Geomatics	907,000	2.0%
Oil & Gas	227,000	0.5%
Total	44,533,000	100.0%

(Value in Canadian dollars)

Service Exports by Firm Size

All of the respondents in this sector who were exporters were small- and medium-sized firms. Firms with 25-49 employees generated $40.0 million in exports, or 89.8% of exports. Those with 10-24 employees accounted for the remaining share of $4.5 million or 10.2%.

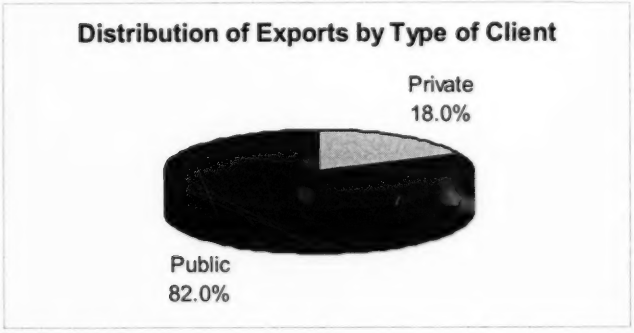


Distribution of Service Exports by Firm Size (number of employees)		
1-9	0	0.0%
10-24	4,533,000	10.2%
25-49	40,000,000	89.8%
50+	0	0.0%
Total	44,533,000	100.0%

(Value in Canadian dollars)

Service Exports by Type of Client

As indicated in the graph below, $36.6 million, or 82% of the service revenues, came from public sector entities and $8 million, or 18% from private sector firms.



Distribution of Exports by Type of Client		
Private	8,000,000	18.0%
Public	36,533,000	82.0%
Non-profit	0	0.0%
Total	44,533,000	100.0%

(Value in Canadian dollars)

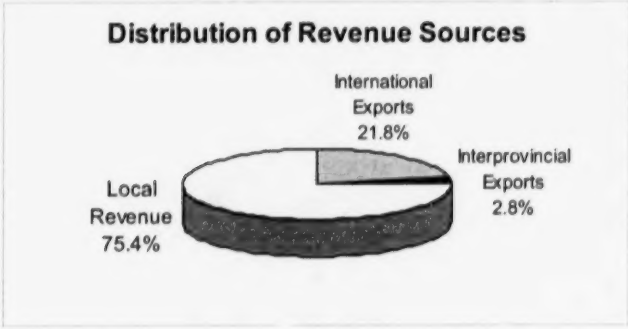
International Export Markets

The top markets of interest indicated by respondents were the United States, Asia, and South and Central America. Other markets where firms reported significant activity included Barbados, Trinidad and Tobago, China, and South Korea.

Management Consulting

Interprovincial and International Service Export Revenue

Total revenue for management consulting in Alberta in 1999 was $690.8 million. Of this amount, 75.3% was generated inside Alberta, and 24.6% or $170.1 million was export revenue, with the majority from international sources. $21.8% of total sector revenue, or $150.7 million, was from international exports, the highest of all sectors.



Distribution of Revenue	Value in dollars	Percentage
Local Revenue	520,704,000	75.4%
Interprovincial Exports	19,450,000	2.8%
International Exports	150,648,000	21.8%
Total Exports	170,098,000	24.6%
Total Revenue	690,802,000	100.0%

Types of Service Exports

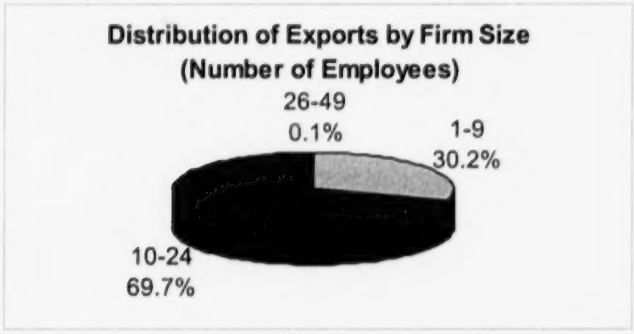
Management consultants provided several types of services to their clients. As shown in the graph below, $94.3 million or 56% of this export revenue came from the engineering sector, while 23.3% of activity was classified as "other."

Distribution of Exports by Type of Service		
Computer services	8,095,411	4.8%
Engineering	96,701,859	56.9%
Management Consulting	23,934,438	14.1%
Oil & Gas	1,744,621	1.0%
Other	39,621,670	23.3%
Total	170,098,000	100.0%

(Value in Canadian dollars)

Service Exports by Firm Size

Virtually all of the service export revenue reported was generated from management consulting firms with fewer than 25 employees. Firms with less than 10 employees generated $51.4 million, or 30.2% of the service export revenue. Firms employing between 10 and 24 employees generated $118.6 million or 69.7% of revenue, while firms with 25-49 employees produced the remaining $108,000 of export revenue.

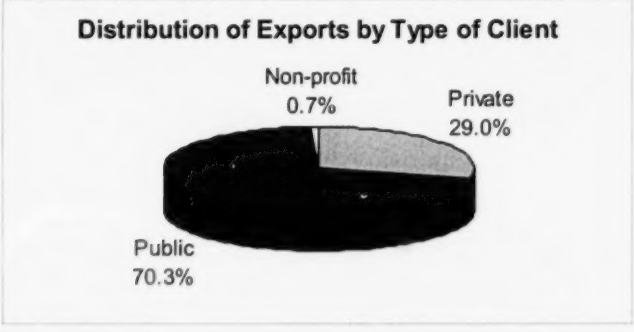


Distribution of Service Exports by Firm Size (number of employees)		
1-9	51,408,000	30.2%
10-24	118,582,000	69.7%
25-49	108,000	0.1%
50+	0	0.0%
Total	170,098,000	100.0%

(Value in Canadian dollars)

Service Exports by Type of Client

The share of public clients reported by management consulting firms was $119.4 million, or 70% of total service revenue. The second largest was the private sector with $49.2 million or 29%. Non-profit organizations came a distant third with $1.2 million or 0.7%.



Distribution of Exports by Type of Client		
Private	49,269,385	29.0%
Public	119,629,880	70.3%
Non-profit	1,198,734	0.7%
Total	170,098,000	100.0%

(Value in Canadian dollars)

International Export Markets

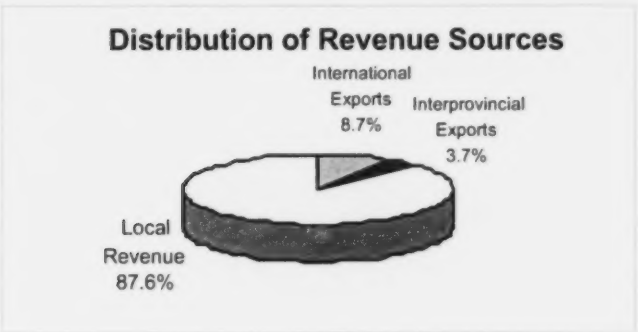
The largest market in the management consulting sector was the United States. Firms actively exporting to the United States earned $171,000 per firm on average in export revenue. Other top markets were the Netherlands, where average firm earnings were $142,000 as well as France, Japan, Mexico and Australia.

Top Markets and Average Earnings In Market (per firm)	
United States	$171,000
Netherlands	$142,000
France	$120,000
Japan	$77,000
Mexico	$22,000
Australia	$5,000

Oil and Gas Services

Interprovincial and International Service Export Revenue

The total exports for the oil and gas sector were $565 million. Of this amount, $397 million, came from international sales, while $168 million was from within Canada. Local revenues were by far the largest, at $4.0 billion. Oil and gas was one of the sectors least dependent on international sources for revenue.



Distribution of Revenue	Value in dollars	Percentage
Local Revenue	4,010,046,250	87.6%
Interprovincial Exports	168,077,750	3.7%
International Exports	397,434,875	8.7%
Total Exports	565,512,625	12.4%
Total Revenue	4,575,558,875	100.0%

Types of Service Exports

As indicated in the following table, the services of the oil and gas industry are primarily within the industry. That is, 99.7% of the revenue came from providing oil and gas services, with a minimal amount from other types of services.

Distribution of Exports by Type of Service		
Construction	21,900	0.0%
Engineering	123,266	0.0%
Geomatics	37,293	0.0%
Management Consulting	277,944	0.0%
Oil & Gas	563,771,504	99.7%
Other	1,280,718	0.2%
Total	565,512,625	100.0%

(Value in Canadian dollars)

Service Exports by Firm Size

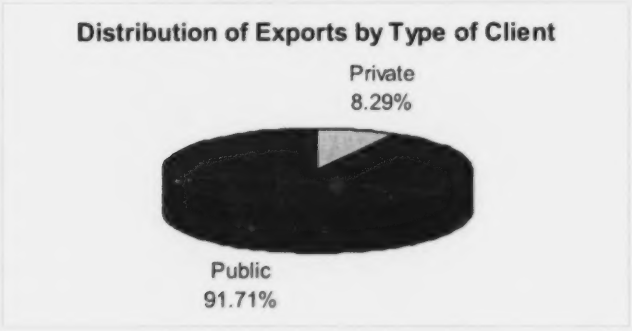
The oil and gas industry is the backbone of the Alberta economy. Unlike some of the industries examined, firms with more than 50 employees dominated the industry, and generated 98.6% of service export revenue.

Distribution of Service Exports by Firm Size (number of employees)		
1-9	4,184,125	0.7%
10-24	3,782,750	0.7%
25-49	5,000	0.0%
50+	557,540,750	98.6%
Total	565,512,625	100.0%

(Value in Canadian dollars)

Service Exports by Type of Client

91.7% of the total service revenue reported in the oil and gas sector was generated from the public sector, with 8.3% coming from private clients. Public clients account for a large share of the market likely because of the many state-owned oil firms in international markets.



Distribution of Exports by Type of Client		
Private	46,900,431	8.3%
Public	518,607,304	91.7%
Non-profit	4,890	0.0%
Total	565,512,625	100.0%

(Value in Canadian dollars)

International Export Markets

By far the largest export market for oil and gas firms was the United States, where firms earned an average $4.2 million. 70% of exporters did business in the United States, and it accounted for 99.7% of international revenues. 18% of firms reported to be active in Africa or the Middle East, as well as 18% in Asia. Australia was a significant market of activity, where firms earned on average $9,000. Important markets identified in the Middle East were Oman, Qatar, and Yemen.

Top Markets and Average Earnings In Market (per firm)	
United States	$4,166,000
Australia	$9,000

(Value in Canadian dollars)

Conclusion

Services comprise the majority of economic activity in the province, and are of critical importance. Service exports are growing, and as Alberta looks to diversify its exports, it is important to know in which directions Alberta firms are going. This study provides information that allows the Alberta government to make better decisions with regards to the province's international marketing strategy. It details the relative sizes of various sectors as well as determines which sectors are more inclined to export. It has provided an indication of what markets are critical to service export firms, as well as new markets that are specific to certain sectors. The information presented in the *Service Exports Survey* enables the Government of Alberta to take more informed positions with regard to present and future negotiations on trade in services, and contributes to provincial policy and planning strategies to develop trade in services.

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